PATENT ABSTRACTS OF JAPAN

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(21)Application number : 10-230483   (71)Applicant : MATSUSHITA ELECTRIC IND CO
                                                          LTD

(22)Date of filing :   17.08.1998   (72)Inventor : IIZUKA TOSHIRO

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(54) RADIO COMMUNICATION EQUIPMENT

(57)Abstract:
PROBLEM TO BE SOLVED: To attain phone
communication even in a public place while being in
good-mannered.
SOLUTION: In the case of sending a character message,
a person moves its mouth so as to make a speech without
utterance of voice. Two three- dimensional cameras
photographs the motion of the mouth to catch the shape
of the lips. Data in the photographed shape of the lips
are fed to an image recognition section 103, where the
image is recognized and referred to corresponding voice
data from a lip shape database stored in advance in a
memory 106 to analyze the shape data to which of voice
data the shape data correspond. The analyzed voice data
are as a character message given to a radio control
section 109 and a radio section 108, where the data are
controlled for a radio signal and the resulting data are
transmitted via an antenna 107.
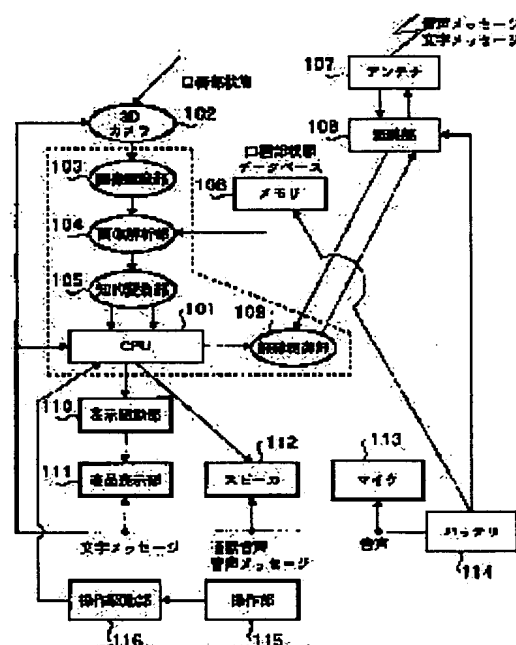
LEGAL STATUS
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rejection]
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the examiner's decision of rejection or
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KOREAN PATENT ABSTRACTS(KR)
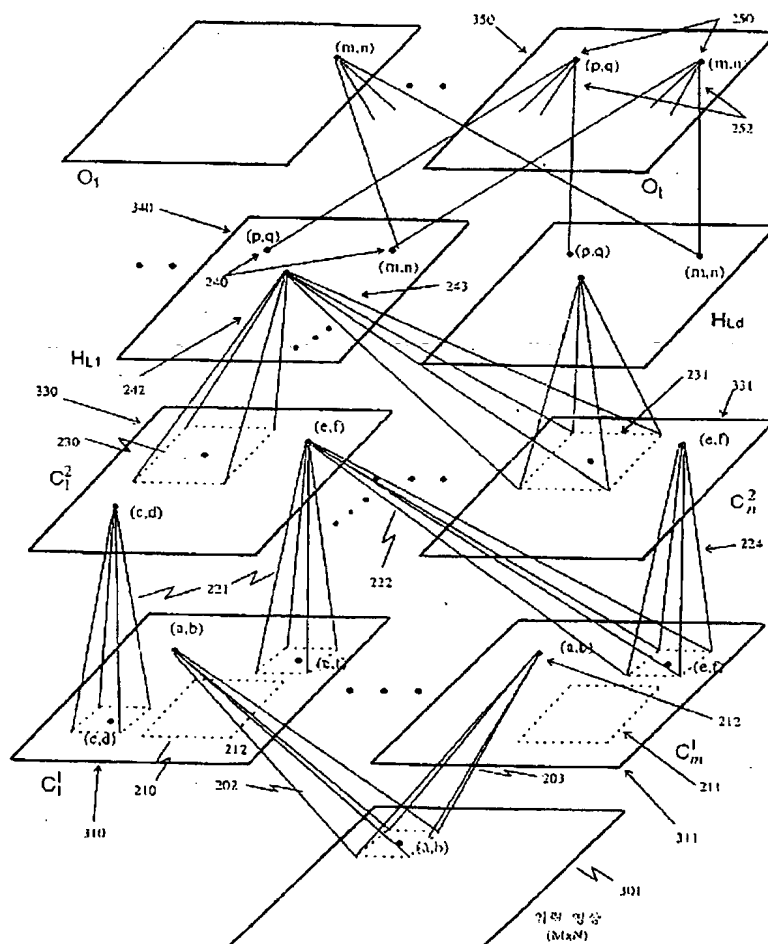
(54) Title of Invention
    METHOD FOR TRACING LOCATION OF FACE USING NONLINEAR CORRELATION NEURAL NETWORK

Representative drawing

(57) Abstract:

PURPOSE: A method for tracing the location of a face using a nonlinear correlation neural network is provided to propose a correlation arithmetic unit based on an artificial intelligent neural network theory and to offer a method to detect the location of a face in an input image so that a camera can trace the location at a high speed using thereof.

CONSTITUTION: A method for tracing the location of a face using a nonlinear correlation neural network is comprised of an image segmentation step to segment an image inputted through a camera by the small image, a feature map processing step for each of the segmented images, a shape recognition processing step and

a face location trace step. In addition, the method comprises a step to execute feature map processing for the whole of the input image and a step to execute shape recognition processing for a plurality of feature maps.

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KOREAN PATENT ABSTRACTS(KR)
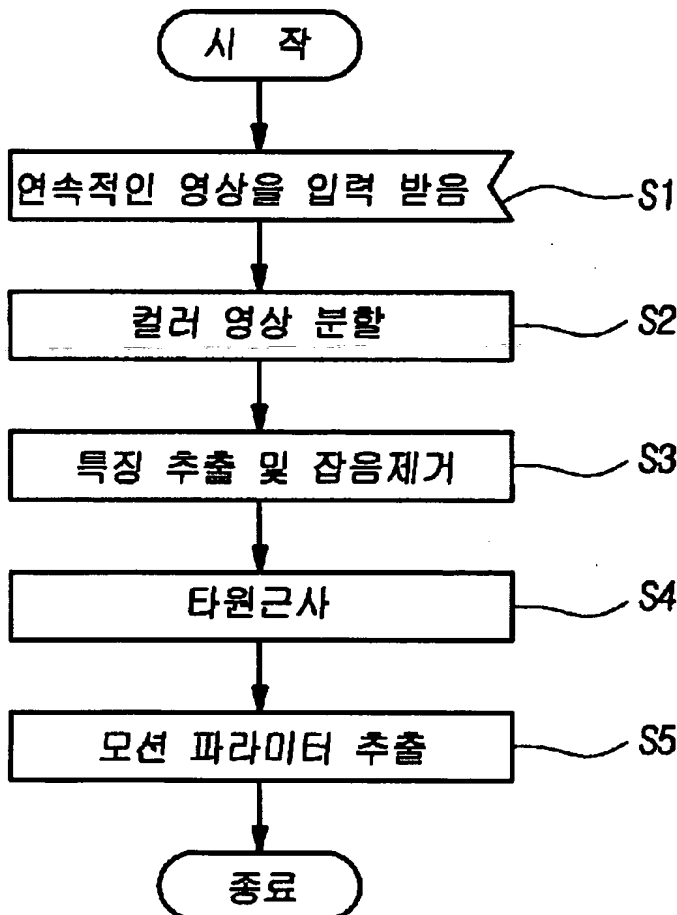
(54) Title of Invention
    METHOD FOR REAL TIME FACE TRACKING USING A SIMILAR ELLIPSOID FIGURE
MODEL AND FACIAL COMPLEXION MODEL AND ITS RECORDING DEVICE

Representative drawing


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            시  작

연속적인 영상을 입력 받음 ⟨ ─── S1

      컬러 영상 분할    ─── S2

특징 추출 및 잡음제거   ─── S3

       타원근사        ─── S4

   모션 파라미터 추출   ─── S5

            종료
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(57) Abstract:

PURPOSE: A method for real time face tracking using a similar ellipsoid figure model and facial complexion model is provided to conduct face tracking with confidence by dividing the facial areas using the facial complexion information and strengthening the unclear parts through ellipsoid modeling of the divided facial areas.

CONSTITUTION: A method for real time face tracking using a similar ellipsoid figure model and facial complexion model is composed of reception, execution, removal, determination, and extraction. A series of images are received (S1), the color segmentation is executed(S2), and each area s distinctive feature is extracted and the unclear parts are

removed(S3). The facial area is determined by executing ellipsoid approximation(S4) and the motion parameter is extracted(S5).

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KOREAN PATENT ABSTRACTS(KR)

(71) Applicant:
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(72) Inventor:
    KIM, SANG WON
    LEE, JI HYEONG
    PARK, CHAN JONG
(30) Priority:

(54) Title of Invention
    FACE TRACING SYSTEM AND METHOD THEREOF USING THREE DIMENSIONAL
POSITION CONTROLLER

Representative drawing

(57) Abstract:

PURPOSE: A face tracing system and method thereof using three dimensional position controller is provided to give a stable and good picture by keeping a position relation with camera and face using facing tracing apparatus.

CONSTITUTION: A three dimensional position tracing measure(10) senses and traces motion of head in three dimensional space. A position and angle operator(20) calculates position and angle of user s head motion according to information about head motion of people traced by the three dimensional position tracing measure(10). A three dimensional position controller (30) is responded according to position and angle calculated by

the position and angle operator(20), and then controls that a camera(40) adhered to the end of apparatus is positioned where has always a designated distance and angle against user s face. A picture display measure displays pictures which is taken a picture of by the camera(40).

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KOREAN PATENT ABSTRACTS(KR)

(54) Title of Invention
     METHOD AND DEVICE FOR VERIFYING PERSONAL IDENTITY BASED ON FACE
FOR MOBILE TERMINAL

Representative drawing

(57) Abstract:

PURPOSE: A method and device for verifying a personal identity based on a face for a mobile terminal is provided to verify a person s identity based on a face image inputted through a camera for removing a user s rejection in an identity verification system.

CONSTITUTION: The elements of a terminal verifying unit(100) are described as follows. A face input unit(110) receives a face image from a camera being attached to a mobile terminal. A display unit(120) displays the inputted face image(120). A processor(130) registers and verifies a face through all sorts of image processing processes. A database(140) stores face information. A terminal control unit(150) controls an operation of the terminal in accordance
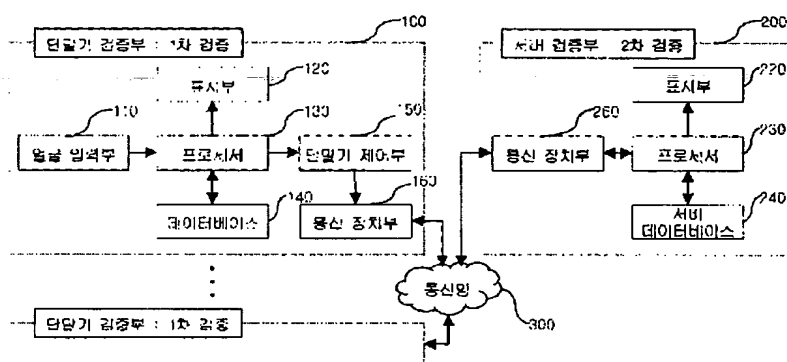
with a verifying result. A communication control unit(160) performs an encryption for a security on a network and transmits data through a communication network(300). The elements of a server verifying unit(200) are described as follows. A communication control unit(260) decodes data inputted through the communication network(300) and performs an encryption for transmitting the data. A display unit (220) displays working contents(220). A processor(230) processes a user verification and data to be transmitted to a terminal server. A database(240) stores user information and other services.
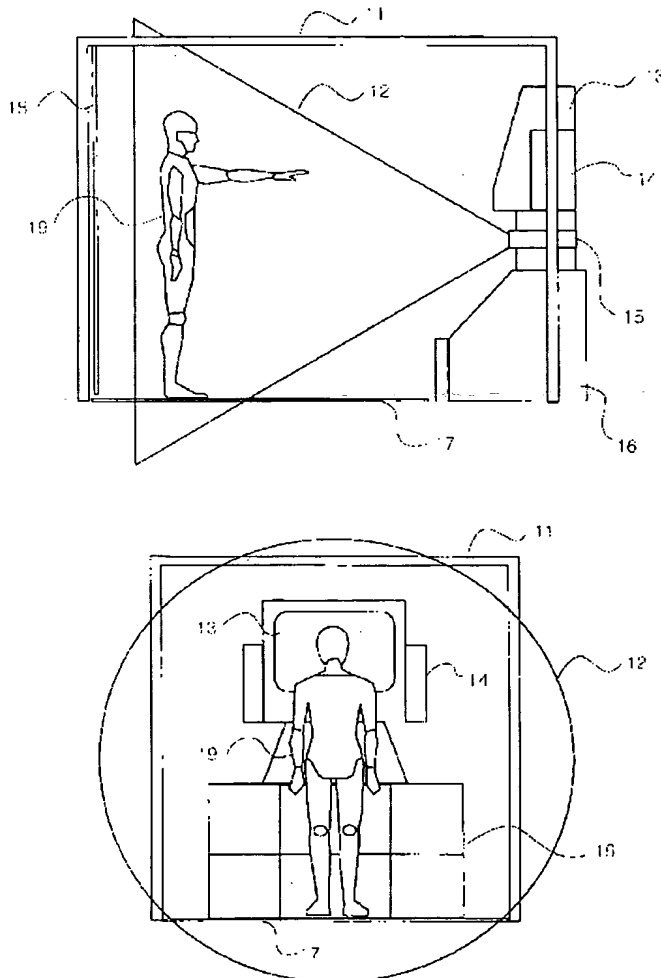
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KOREAN PATENT ABSTRACTS(KR)

(54) Title of Invention
    FEELING GAME SYSTEM BY MACHINE VISION AND PATTERN AWARENESS AND METHOD THEREOF

Representative drawing

(57) Abstract:

PURPOSE: Provided is a feeling game system by machine vision and pattern awareness which projects one s own dance motion into a monitor to compare with a standard motion so that it helps users to correct their own dance motion effectively.

CONSTITUTION: The feeling game system by machine vision and pattern awareness comprises the parts of: an output tool(14) which generates music; a small-sized optic camera(15); a monitor for displaying 3D character standard image which directs motion of the entire human body to music accompaniment; a network treatment part which transmits data toward an external device; a lighting tool which extracts stable user silhouette in a filming tool; and a

pipe frame which is placed for the same color floor sheet(17) and green screen(18) as the lighting tool.

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# KOREAN PATENT ABSTRACTS(KR)

(54) Title of Invention
   MOTION CAPTURE SYSTEM AND METHOD USING IMAGES

Representative drawing

(57) Abstract:

PURPOSE: A motion capture system and a method using images are provided to extract motion information of an object from information learned by analyzing the motion of the object using images to apply the motion to a virtual character.

CONSTITUTION: A motion capture system using images includes an image capturing means(10) for capturing an image of an object, a digital signal converter(20) for converting the captured image into a digital signal, and a digital signal processor(30) for processing the digital signal to analyze the image so as to recognize a corresponding object from information learned in advance and calculating coordinates of each of parts of the recognized object. The system further has a main
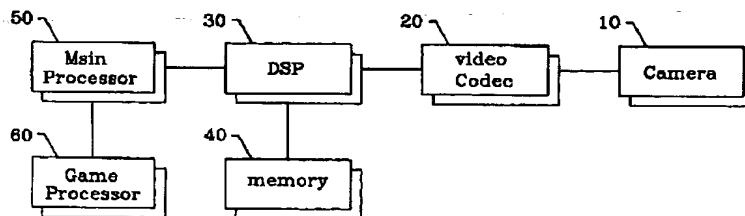
controller(50) for extracting motion information of the object from the input image, controlling a series of processes for applying the motion information to a corresponding character, and outputting coordinate information of the recognized object, a character control processor(60) for determining the motion of the character, and a memory(40) for storing the learned information with respect to the object and calculation information used for calculating motion tracking coordinates from the input image.

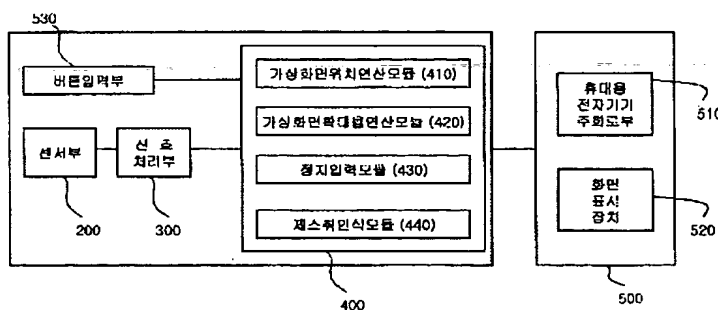if display of image is failed, press (F5)

KOREAN PATENT ABSTRACTS(KR)

(54) Title of Invention
    DEVICE FOR CONTROLLING VIRTUAL SCREEN OF PORTABLE ELECTRONIC APPARATUS AND METHOD THEREFOR

Representative drawing

(57) Abstract:

PURPOSE: A device for controlling a virtual screen of a portable electronic apparatus is provided to have a sensor for sensing motions of the portable electronic apparatus, and to have a control device for controlling motions and expansions of the virtual screen within a screen display device, thereby conveniently watching complex documents and images.

CONSTITUTION: A sensor(200) senses motions of a portable electronic apparatus. A signal processor(300) filters an output signal of the sensor, and converts the filtered signal into a digital signal. A user inputs a button in a button input unit (530). A control operator(400) comprises as follows. A virtual screen location operation module(410) detects motions of

the portable electronic apparatus by using an output signal of the signal processor and the inputted button, and arithmetically operates a location of a virtual screen. A virtual screen expansion operation module(420) arithmetically operates an expansion of the virtual screen. A stop input module(430) selects a menu or a program by a stop button and a sensor built in a virtual screen control device, and performs a function. A gesture recognition module(440) recognizes gestures of the user to make the portable electronic apparatus perform a command corresponding to the gestures.

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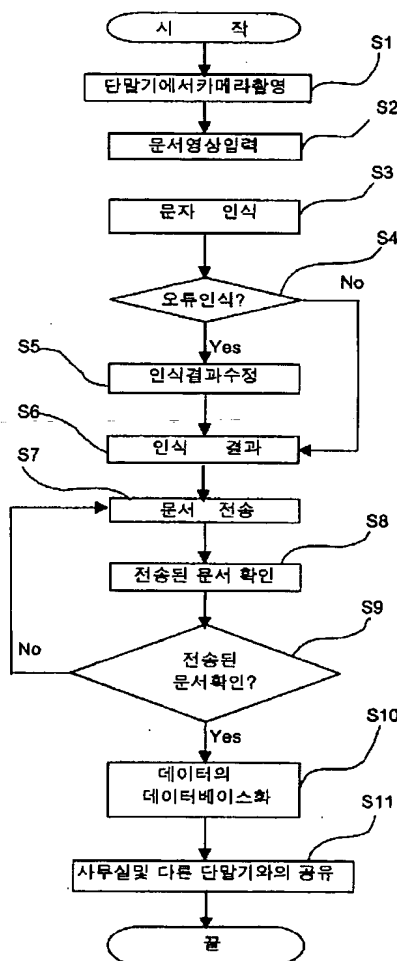
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KOREAN PATENT ABSTRACTS(KR)

(54) Title of Invention
    METHOD FOR RECOGNIZING CHARACTERS USING IMT-2000

Representative drawing

(57) Abstract:

PURPOSE: A method for recognizing characters using an IMT-2000 is provided to secure large amount of data by sharing data with the IMT-2000, and use good-quality data at any time.

CONSTITUTION: A camera loaded in an IMT-2000 terminal takes a photograph of paper document(S1). The image of paper document is made into black-and-white for binary processing(S2). The binary-processed document is recognized by the category(S3). It is determined whether the document has an error(S4). If there is an error, the error is corrected by taking a photograph again(S5). If there is no error, the result is output to a display of the IMT-2000 terminal(S6). The characters output to the display of the IMT-2000 terminal are transmitted to a main computer(S7). The main computer confirms the transmitted characters(S8). The

main computer determines whether an error is generated in the transmitted characters(S). If there is an error, the user confirms the transmitted characters again (S10). If there is no error, the characters are formed as data for being saved at a database(S11).

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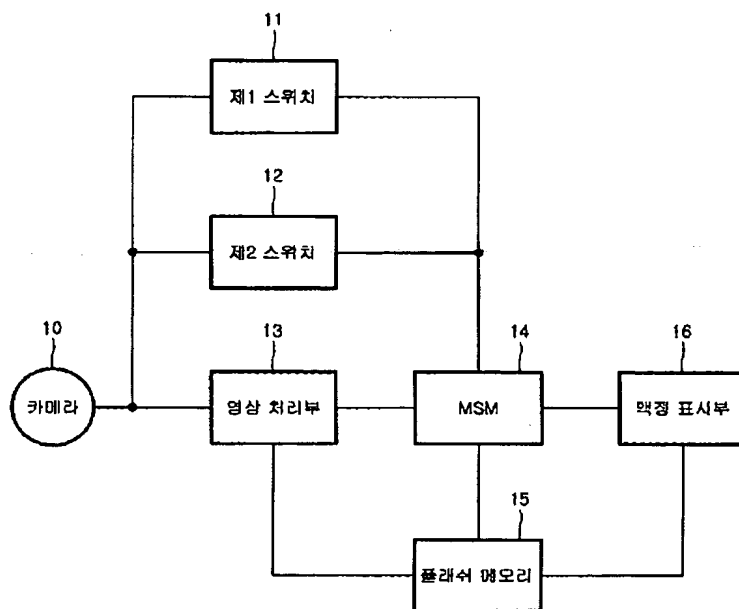if display of image is failed, press (F5)

KOREAN PATENT ABSTRACTS(KR)

(54) Title of Invention
    ELECTRONIC POCKETBOOK AND DICTIONARY DEVICE IN IMT-2000 TERMINAL

Representative drawing

(57) Abstract:

PURPOSE: An electronic pocketbook and dictionary device in an IMT-2000 terminal is provided to implement an electronic pocketbook and dictionary function without directly inputting data by storing a user s note, inputted through a camera in the form of a static image, as image data, processing the inputted image data into text data, and indexing an electronic dictionary database stored in a memory.

CONSTITUTION: An electronic pocketbook and dictionary device in an IMT-2000 terminal consists of the first switch(11), the second switch(12), a camera(10), an image processing part(13), a flash memory(15), an LCD(16), and an MSM(14). The first switch(11) and the second switch(12) transfer the terminal to an electronic pocketbook mode or an electronic dictionary mode according to a user s

input. The camera(10), connected to the first switch(11) and the second switch(12), receives static image data inputted from the user. The image processing part(13) processes the inputted static image data. The flash memory(15) stores the processed static image data and an electronic dictionary database. The MSM(14) recognizes a mode according to the connection state of the first switch(11) and the second switch(12) and controls the image processing part(13), the flash memory(15) and the LCD(16).

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